

# NASA TECH BRIEF

## Langley Research Center



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### Position Indicating, Rotating Boom

A universal multiplanar position indicating, rotating boom has been developed for use in a noise research laboratory. This boom, at present, mounts a microphone, but it could also be used to transport and position a light source, sensor (pressure, heat, etc), or a device such as a mechanical hand in a hostile environment.

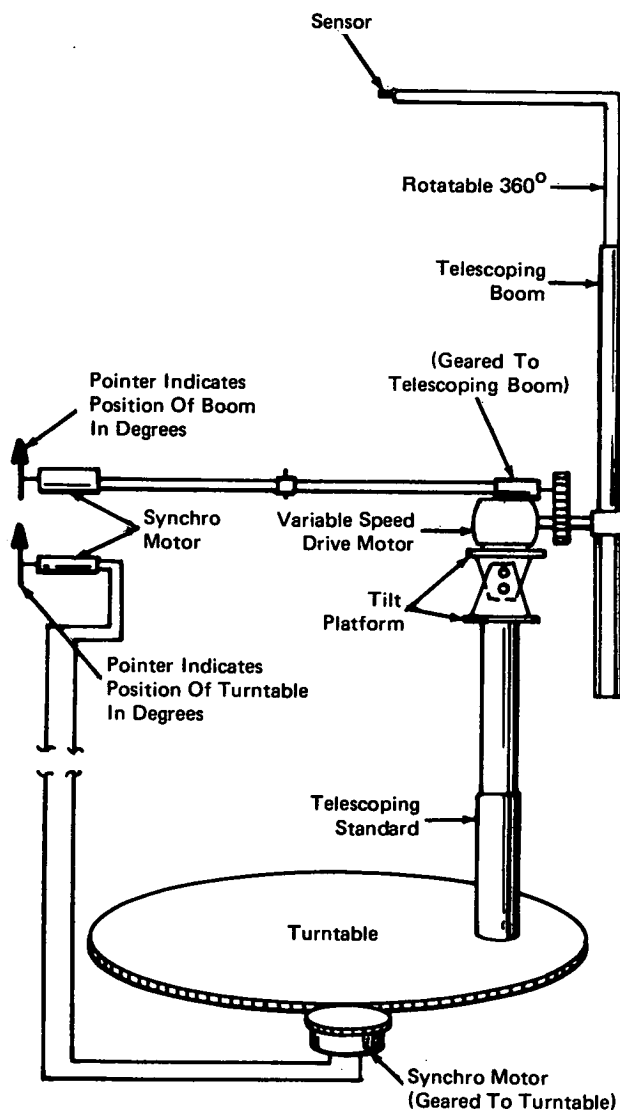
With this boom it is possible to position a sensor by remote control at a preselected point in a spherical space and to indicate the position of the sensor at any time. The movement of the sensor may be continuous or incremental.

The sensor (see figure) is mounted on a telescoping boom which is  $360^\circ$  rotatable. Movement of the boom is controlled by a variable-speed drive motor mounted on the tilt platform and is indicated by the position of the pointer of a remote dial which is calibrated in degrees. The tilt platform is capable of being rotated up to  $90^\circ$  from the vertical and is connected to the turntable by means of a telescoping standard which has one end secured rigidly to the turntable, the other end attached to the tilt platform, and is capable of rotation about its longitudinal axis. The motor driven turntable is capable of being rotated  $360^\circ$ ; its position is continuously indicated by the position of the pointer of another remote dial which is also calibrated in degrees.

#### Note:

No additional documentation is available. Specific questions, however, may be directed to:

Technology Utilization Officer  
Langley Research Center  
Mail Stop 139A  
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Reference: B72-10066



(continued overleaf)

**Patent status:**

Inquiries concerning rights for the commercial use  
of this invention should be addressed to:

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